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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/719,292

11/20/2003

Tai Wo Ng

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09/13/2004

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EXAMINER

MULLINS, BURTON S

ART UNIT

PAPER NUMBER

2834

DATE MAILED: 09/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/719,292

Applicant(s)

NG ET AL.

Examiner

Burton S. Mullins

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

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Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 20 November 2003 has been considered by the examiner.

Specification

3. The disclosure is objected to because of numerous errors in grammar and syntax. For example, in paragraph 8, line 5, "a" should be --an--and "radial direction" lacks an article. On lines 9-10, "a vertical cross-section of a concentric circle with the rotor" makes no sense. Presumably this means ---a circular vertical cross-section concentric with the rotor---. Appropriate correction of these and other errors is required.

Claim Objections

4. Claims 1-3 are objected to because of the following informalities: Numerous grammar and syntax errors appear throughout the claims. For example, in claim 1, line 6, "a" should be --an--and "radial direction" lacks an article. In claim 3, the syntax of "but for straight-line sections" is not clear. Should this be --except for straight line sections--? Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. Claims 1-3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 1, recitation “two ends of the narrow grooves being connected with the stator blade” is vague and indefinite. Since the grooves comprise empty space, it is not clear how their “ends...[connect] with the stator blade.” Presumably this means that the stator blade bounds the grooves. In claim 2, recitation “a vertical cross-section of a concentric circle with the rotor” makes no sense. Presumably this means ---a circular vertical cross-section concentric with the rotor---. In claim 3, recitation “front-end locations of the narrow grooves” is vague and indefinite because “front-end” is not defined. Presumably this refers to the flat sections of the stator blade’s rotor hole perpendicular to the narrow grooves, as denoted by 308a-308c in applicant’s Fig.3. Also, to describe each of the straight-line sections as “perpendicular to a diameter of the rotor” makes no sense because each is also parallel to a diameter of the rotor. Rather, the straight-line sections of the rotor hole are perpendicular to the narrow grooves, as evident from applicant’s Fig.3.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-2 as best understood are rejected under 35 U.S.C. 102(b) as being anticipated by Laesser et al. (4,361,790). Laesser teaches a stator blade 23 made of soft magnetic materials and a permanent magnet rotor 30 having a rotor axis and being accommodated within a rotor hole 26 located at a center position of the stator blade (Figs.9&14), wherein the stator blade incorporates three narrow grooves (notches) 41-43 therein (Fig.14), each of which is disposed a angle of 120 degrees to one another along radial direction of the rotor (Fig.14), two ends of the narrow grooves being connected with the stator blade [sic] such that when a current is present in coils 31/32 disposed along two sides of the stator blade (Fig.9) a magnetic-pole end surface (pole faces, c.8, line 55) surrounding the rotor hole is formed by a part of the stepping motor between two of the narrow grooves in the stator blade (as in Fig.1, where N and S poles are formed on pole faces 1a and 1b, between two grooves).

Regarding claim 2, as seen in Fig.14, the rotor hole has a vertical cross-section of a concentric circle with the rotor and the distance from each end of each of the narrow grooves to a center of the rotor axis is equal.

Allowable Subject Matter

8. Claim 3 as best understood would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims. As best understood, the prior art does not teach or suggest that the rotor hole has a vertical cross-section approximating a circle except for straight-line sections which are disposed about the rotor hole in positions proximate front-end locations of the narrow grooves in the stator blade [sic], i.e., perpendicular to the narrow grooves.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Burton S. Mullins whose telephone number is 571-272-2029. The examiner can normally be reached on Monday-Friday, 9 am to 5 pm. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2834

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Burton S. Mullins
Primary Examiner
Art Unit 2834

bsm
08 September 2004